

WHAT IS CLAIMED IS:

1. A database system comprising:

a plurality of database servers each of which includes
5 a database from which the same content can be searched and
retrieved in response to a query;

a front-end server that receives said query from a
client terminal, and that poses said query to any of said
database servers according to at least one predetermined
10 rule;

a management server that manages said rule with a rule
management unit to be used by said front-end server wherein
said servers and client terminals that issue a query are
interconnected; and

15 said management server further comprising:

a log acquisition unit for acquiring a processed query
log relevant to each database server;

and a rule production unit for producing said rule
according to a compatibility value of a query calculated
20 using the acquired query log in a compatibility calculation
unit; and

said front-end server further comprising a query posing unit that uses the rule produced by said management server to pose the query.

2. A management server comprising:

5 a log acquiring unit for acquiring a processed query log relevant to each of a plurality of database servers;

a rule production unit for producing a rule according to the compatibility value of a query calculated using the acquired processed query log; and

10 a rule transmitting unit for transmitting the produced rule to said front-end server so that said front-end server can pose the query according to the produced rule wherein:

the management server is structured to manage the
15 rules to be used by said front-end server which poses the query to at least one of said plurality of database servers and wherein;

each of said database servers includes a searchable database from which the same content can be retrieved, in
20 response to said query according to said rule.

3. A management server according to Claim 2, wherein said rule production unit statistically processes a processed

query listed in the acquired processed query log, and calculates the compatibility value of the processed query so as to produce a rule.

5 4. A management server according to Claim 3, wherein:

 said rule production unit groups said processed queries listed in said processed query log into at least one group sorted by at least one shared criteria of the processed queries relevant to each database server; and

10 based on a result of a comparison between a first average of all processing times required for said processed queries classified into said group and a second average of processing times required to process a selected processed query classified into said group while maintaining a
15 predetermined temporal relationship with another selected processed query classified into a second group, said rule production unit calculates the compatibility value between the queries to produce a rule.

5. A management server according to Claim 2, wherein based
20 on a result of a comparison between a first processing time required for a first processed query listed in a first processed query log stored in a database and a second processing time required for a second processed query listed in a second processed query log stored in another database,

said rule production unit calculates the compatibility value between the queries and the databases to produce a rule.

5 6. A management server according to Claim 2, wherein based on a result of a comparison between an average of processing times required to process a first query issued by a first user and an average of processing times required to process the first query issued by the first user while maintaining
10 a predetermined temporal relationship with a second query issued by a second user, said rule production unit calculates the compatibility value between the first and second queries of the first and second users, so as to produce a rule.

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7. A management server according to Claim 2, further comprising a rule changing unit for changing a rule produced by said rule production unit.

20 8. A management server according to Claim 7, further comprising an external access unit for permitting external access over a network, wherein said rule changing unit changes a rule via said external access unit.

9. A management server according to Claim 2, wherein:

said log acquiring unit acquires the processed query log listing a query posed based on the rule transmitted by
5 said rule transmitting unit; and

said rule production unit produces a second rule according to the compatibility value of the query, wherein the second rule is calculated using the acquired processed query log and thus the management server autonomously
10 creates a new rule.

10. A query posing method implemented in a database system comprising a plurality of database servers each of which includes a database from which the same content can be
15 retrieved and which searches the database in response to a query request;

a front-end server that receives the query request and poses a query to at least one of said database servers according to a predetermined rule method wherein the rule
20 method comprises:

acquiring in a management server a processed query log relevant to said database servers,

calculating a query compatibility value in said management server by using said processed query log;

producing a rule according to said compatibility value; and

5 controlling said front end server by said management server wherein said front-end server uses the rule produced by said management server to selectively pose said query to a selected most compatible database server from said database servers according to said rule.

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11. A query posing method according to Claim 10, further comprising:

statistically processing said acquired processed query log and said query in order to calculate said
15 compatibility value of said query when producing said rule.

12. A query posing method according to Claim 11, wherein:

before the calculating step;

grouping queries listed in said processed query log
20 relevant to each of said database servers; and

comparing based on the result of a comparison between a first average of processing times required for a first

query classified into a group and a second average of processing times required to process said first query classified into the group while maintaining a predetermined temporal relationship with a second query classified into
5 a second group, and then

calculating the compatibility value between the queries.

13. A query posing method according to Claim 10, further
10 comprising:

statistically processing a query listed in said processed query log in order to calculate the compatibility value between the query and said database servers so as to produce a rule.

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14. A query posing method according to Claim 10, further comprising:

statistically processing a query listed in said processed query log in order to calculate the compatibility value
20 between users, who issue a query, so as to produce a rule.

15. A query posing method according to Claim 10, further comprising:

excluding, if said selected most compatible database
server compatible with said query is not found, an
incompatible database server incompatible with the query
from said database servers to which the query can be posed,
5 and

selecting a database server to which the query is
posed in terms of probability of compatibility with said
query.

10 16. A query posing method according to Claim 10, further
comprising;

when said selected most compatible database server is
not found, determining a previously used database server
that has immediately previously processed a query
15 compatible with the query is selected, and

posing the query to the previously used database
server.

17. A query posing method according to Claim 10, further
20 comprising:

producing said rule based on the compatibility value
of the query calculated using the acquired log, and wherein
previously transmitted rules are reviewed and a new rule is

autonomously produced based on the performance of past rules.

18. A data updating method for updating data preserved in
5 a management server that manages rules to be used by a
front-end server which poses a query to any of a plurality
of database servers, each of which searches a database from
which the same content can be retrieved, in response to a
query request according to a predetermined rule, said data
10 updating method comprising:

accessing said management server externally over a
network;

acquiring a rule preserved in said management server;

producing an analysis report according to said rule;

15 and

changing said rule preserved in said management
server according to said analysis report.

19. A data updating method according to Claim 18, further
20 comprising:

detecting an impending rule that impedes the operation of
at least one of said database servers based on said analysis
report,

changing the impeding rule to improve operation of
said at least one of said database servers.

20. A database system as in claim 1 wherein:

5 said database servers are connected in a parallel or
distributed environment.